

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for manufacturing a methacrylate (co)polymer comprising conducting polymerization while feeding a monomer (mixture) containing at least 90 wt% in total of at least one methacrylate monomer and a radical polymerization initiator represented by formula (II) into a reactor and for an average residence time of 2 to 6 hours, where an initiator concentration and a polymerization temperature satisfy a relationship represented by equations (1) to (4) and the polymerization temperature is not less than 110°C and not more than 160°C;

$$\ln(A) \leq 105.4 - 45126/B \quad (1)$$

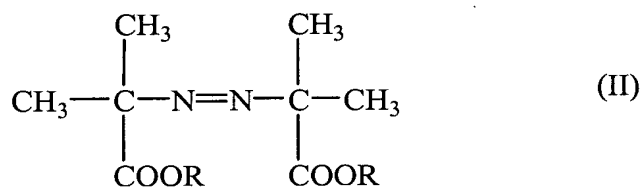
$$\ln(A) \leq 2545.2/B - 15.82 \quad (2)$$

$$\ln(A) \geq 225.9 - 102168.8/B \quad (3)$$

$$\ln(A) \geq 1300.0/B - 15.74 \quad (4)$$

wherein A is an initiator concentration (a molar ratio of the initiator / the monomer);

B is a polymerization temperature (°K); and ln is a symbol for a natural logarithm;



wherein R is alkyl or fluoroalkyl.

Claim 2 (Original): The process as claimed in Claim 1, where an inert solvent is further fed to the reactor in the polymerization step and instead that the

initiator concentration and the polymerization temperature satisfy the relationship represented by the above equations (1) to (4), the initiator concentration, the polymerization temperature and an inert solvent concentration satisfy a relationship represented by equations (5) to (8):

$$\ln \{A \times (1-C)^5\} \leq 105.4 - 45126/B \quad (5)$$

$$\ln \{A \times (1-C)^5\} \leq 2545.2/B - 15.82 \quad (6)$$

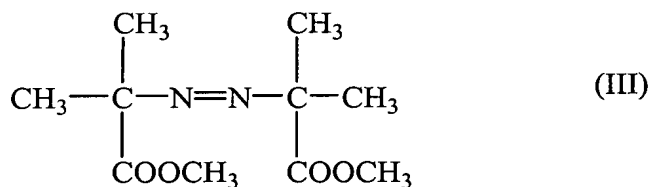
$$\ln \{A \times (1-C)^5\} \geq 225.9 - 102168.8/B \quad (7)$$

$$\ln \{A \times (1-C)^5\} \geq 1300.0/B - 15.74 \quad (8)$$

wherein A is an initiator concentration (a molar ratio of the initiator / the monomer); B is a polymerization temperature (°K); C is the concentration of the inert solvent (the amount of the inert solvent (g) / the total amount of the monomer, the initiator, the chain transfer agent and the inert solvent fed into the reactor (g)); and ln is a symbol for a natural logarithm.

Claim 3 (Original): The process as claimed in Claim 1, where the monomer (mixture) contains at least one monomer selected from the group consisting of methyl methacrylate, a fluoroalkyl methacrylate and benzyl methacrylate.

Claim 4 (Original): The process as claimed in Claim 1, where in the polymerization step, methyl methacrylate is used as one methacrylate monomer, the content of methyl methacrylate in the monomer (mixture) is at least 80 wt%, and the compound represented by formula (III) is used as a radical polymerization initiator:



Claim 5 (Original): The process as claimed in Claim 1, further comprising a feeding step of feeding a reaction mixture taken out from the reactor to a devolatilization step and a devolatilization step of separating and removing volatiles from the reaction mixture.

Claim 6 (Original): The process as claimed in Claim 4, further comprising a feeding step of feeding a reaction mixture taken out from the reactor to a devolatilization step and a devolatilization step of separating and removing volatiles from the reaction mixture.

Claim 7 (Original): The process as claimed in Claim 5, where in the polymerization step, the monomer (mixture) and the initiator are continuously fed to the reactor for bulk polymerization and in the feeding step, the reaction mixture is continuously fed from the reactor to the devolatilization step.

Claim 8 (Original): The process as claimed in Claim 5, where a polymer content in the reaction mixture in the polymerization zone is 30 wt% to 70 wt% both inclusive.

Claim 9 (Original): The process as claimed in Claim 5, where in the polymerization step an alkyl mercaptan having 3 to 6 carbon atoms is further fed to the reactor for conducting polymerization.

Claim 10 (Original): The process as claimed in Claim 5 further comprising a volatile purification step, where the volatiles separated and removed in the devolatilization step are purified using a catalyst containing at least one element selected from the group of copper, cobalt, nickel and manganese in the presence of molecular oxygen and further in the presence of a compound containing at least chlorine.

Claim 11 (Original): A process for manufacturing an optical fiber comprising feeding the (co)polymer prepared by the process as claimed in Claim 5 and another polymer having a different refractive index to a multi-component spinning nozzle for spinning.

Claim 12 (Original): A process for manufacturing an optical fiber comprising feeding at least two (co)polymers mutually different in a copolymer composition and in a refractive index prepared by the process as claimed in Claim 5 to a multi-component spinning nozzle for spinning by concentrically piling the polymers in a manner that a refractive index is reduced from the center toward the periphery.

Claim 13 (Original): A process for manufacturing an optical fiber comprising feeding a core material comprising a (co)polymer prepared by the process as claimed in Claim 1 with other (co)polymer to a multi-component spinning nozzle for spinning by assembling a plurality of islands, where each of the islands has a core and the islands are separated from each other by other (co)polymer.

Claims 14-27 (Canceled).

DISCUSSION OF THE AMENDMENT

The specification has been amended to update the status of the parent application.

Claim1 has been amended by inserting a residence time limitation, as supported in the specification at page 31, lines 15-21.

No new matter is believed to have been added by the above amendment. Claims 1-13 remain pending in the application.